

L-2FA8

4G/LTE Monopole FPC Antenna

CELLULAR

The L-2FA8 is a flexible printed circuit (FPC) antenna designed to operate at frequencies ranging from 698 MHz to 960 MHz and 1710 MHz to 2690 MHz. Its compact dimensions of 40 mm x 15 mm x 0.3 mm offer a space-efficient solution for wireless communication applications.

The L-2FA8 FPC antenna is highly adaptable, with customizable connector and cable length options. It can be easily integrated into various devices and setups, ensuring optimal signal reception and placement.



40 x 15 x 0.3 mm

Document Information

Product	L-2FA8
Part Number	L-2FA8
Description	4G/LTE Monopole FPC Antenna
Version	2.0 (current)
Date	20-JUL-2023
Status	Released

Revision History

Version	Date	Author	Changes
1.0	16-Dec-2020	Amy Li	Initial Release
2.0	20-JUL-2023	Ivy Liao	New layout and design

Product Overview

Product Description

The L-2FA8 is a flexible printed circuit (FPC) antenna designed to operate at frequencies ranging from 698 MHz to 960 MHz and 1710 MHz to 2690 MHz. Its compact dimensions 40 mm x 15 mm x 0.3 mm offer a space-efficient solution for wireless communication applications.

One of the key advantages of the L-2FA8 is its customizable connector and cable length options, allowing for seamless integration into various devices and configurations. This flexibility enables easy installation and optimal positioning for improved signal reception.

Whether you require a specific connector type or a custom cable length, the L-2FA8 FPC antenna can be tailored to meet your unique requirements.

Key Features

- Operates in 698-2690 MHz
- Linear polarization
- Low VSWR
- FPC flexible or PCB material (Optional)
- Omni-directional pattern
- IPEX connector with cable, or Solder direct

Applications

- Cellular
- Transportation
- Industrial wearable
- Smart city
- Smart agriculture
- Home automation

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LTE	698 - 960	MHz	1.9	1.4 d Bi	58%
LTE	1710 - 2690	MHz	1.4	3.3 d Bi	64%

Frequency Range	698 – 2690 MHz	Radiation	Omnidirectional
Impedance	50 Ω	Electrical Type	Monopole
Polarization	Linear		

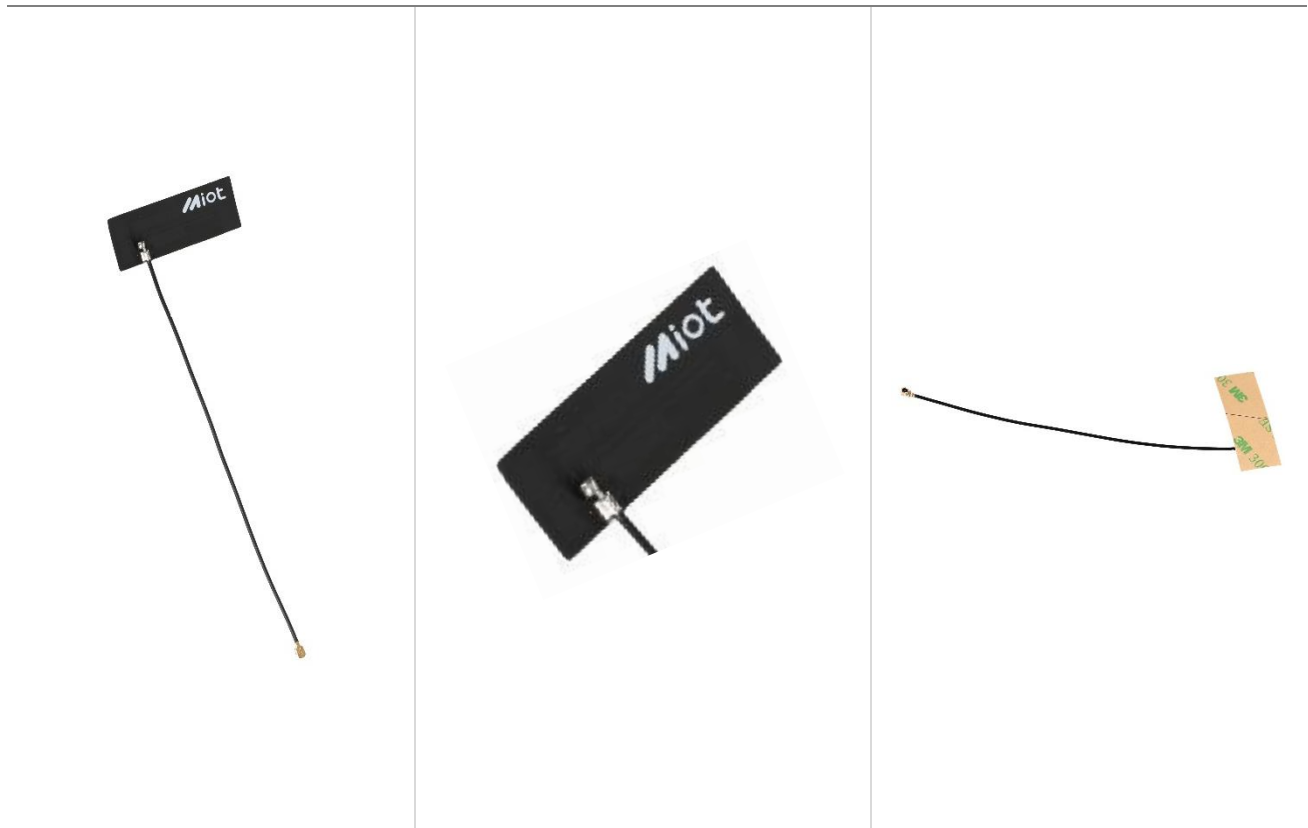
Mechanical Specifications

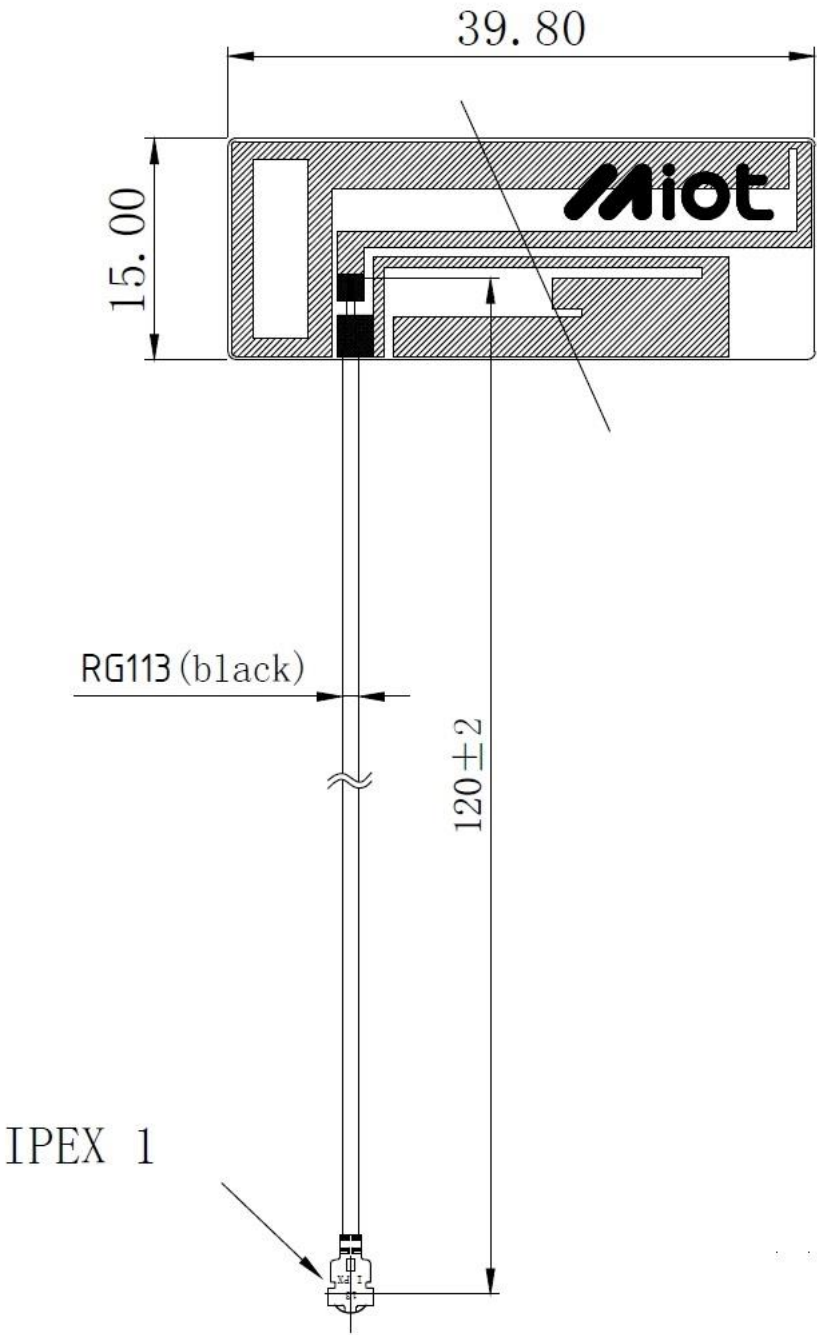
Type	FPC	Cable Type	RF 1.13
Dimensions	40 x 15 x 0.3 mm	Cable Length	120 mm (customizable)
Mounting Type	Adhesive	Color	Black
Connector	IPEX (or Solder Direct)	Material	Flexible Polymer

Caution:

1. Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components, as this will cause damage to the component.
2. Do not expose the component to an open flame.
3. This specification applies to the functionality of the component as a single unit. Please ensure the component is thoroughly evaluated in the application circuit.

Product Image and Dimensions

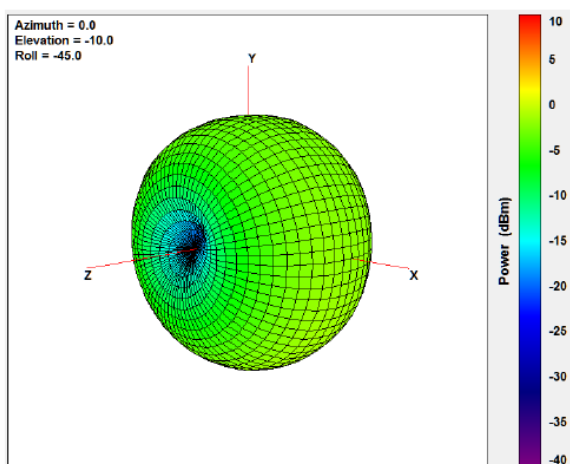




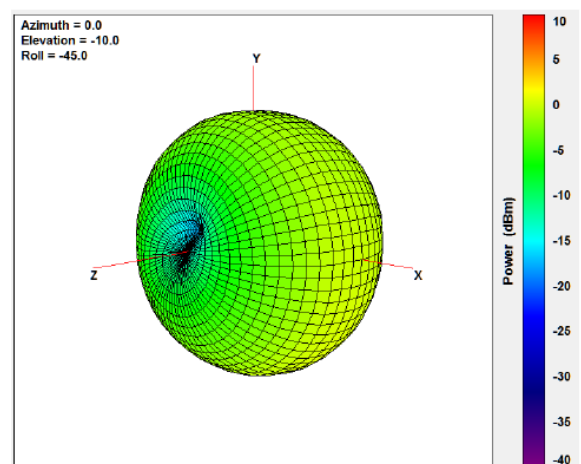
Radiation Pattern

A radiation pattern is a graphical representation of the directional properties of an antenna. It shows how electromagnetic waves are distributed in space in relation to the direction of propagation.

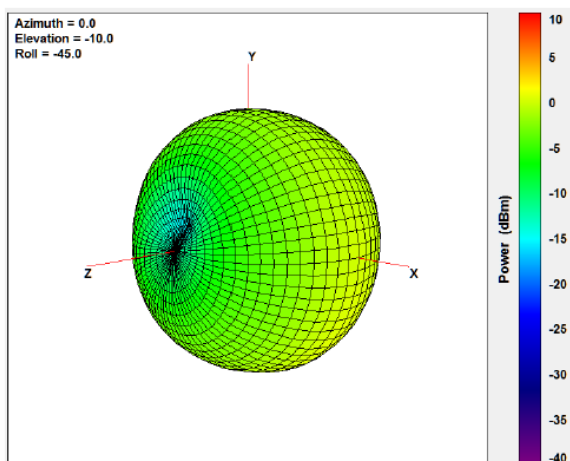
By understanding the information provided by a radiation pattern, it is possible to optimize the design and performance of an antenna for specific applications.



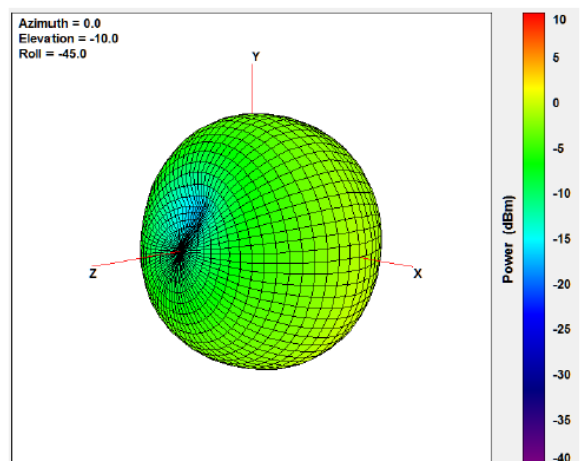
698MHz



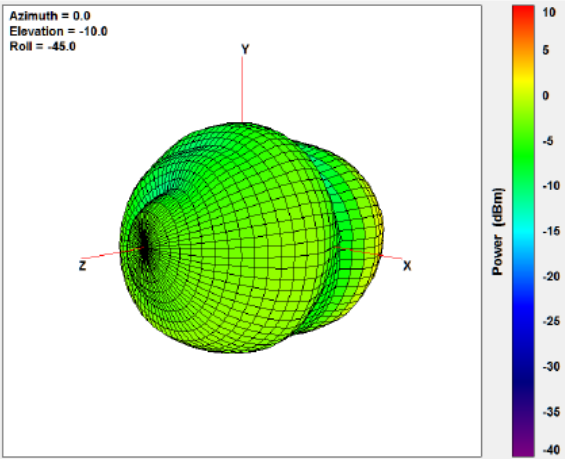
824MHz



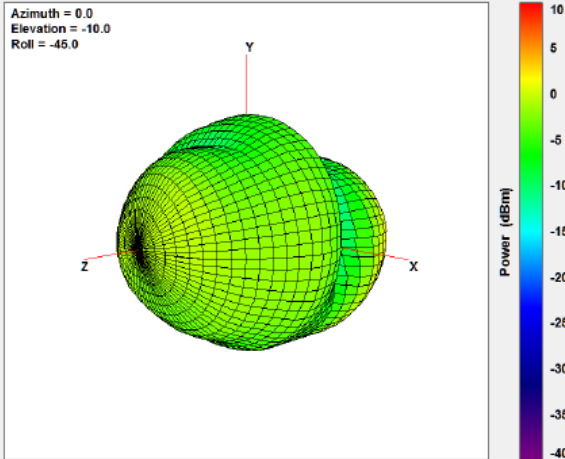
894MHz



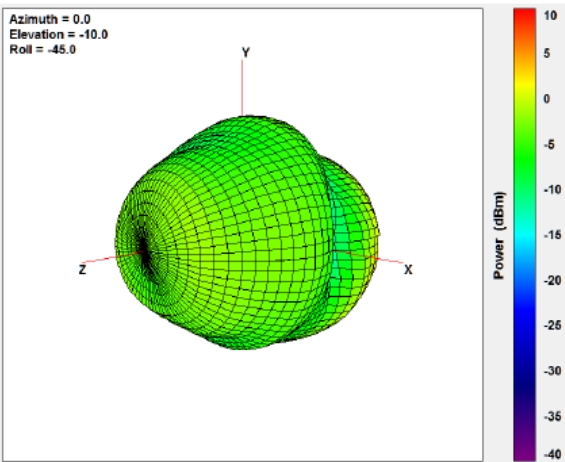
960MHz



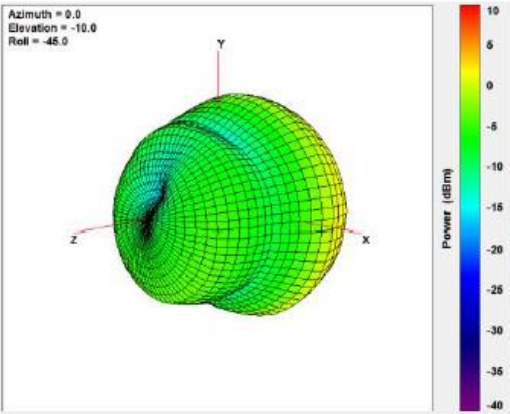
2500MHz



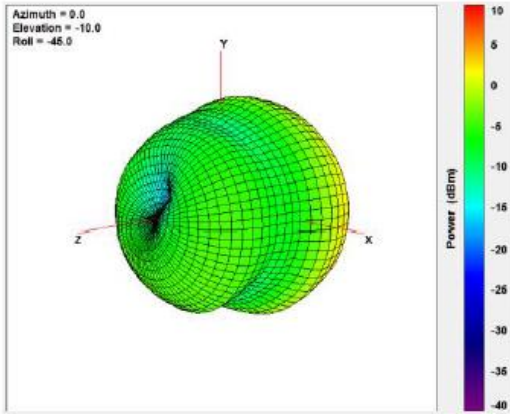
2620MHz



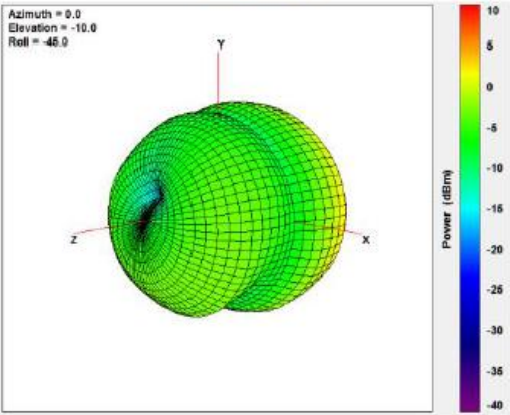
2690MHz



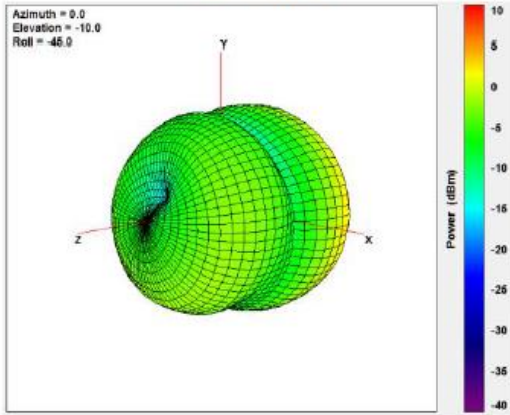
1710MHz



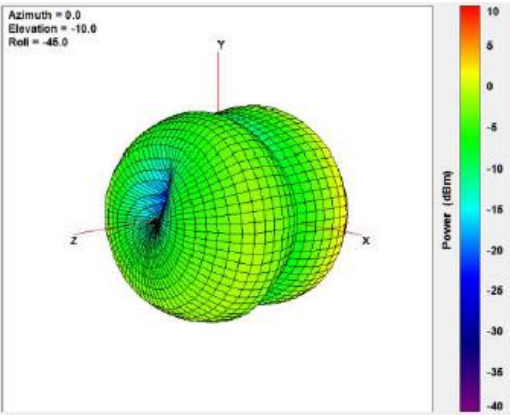
1805MHz



1910MHz

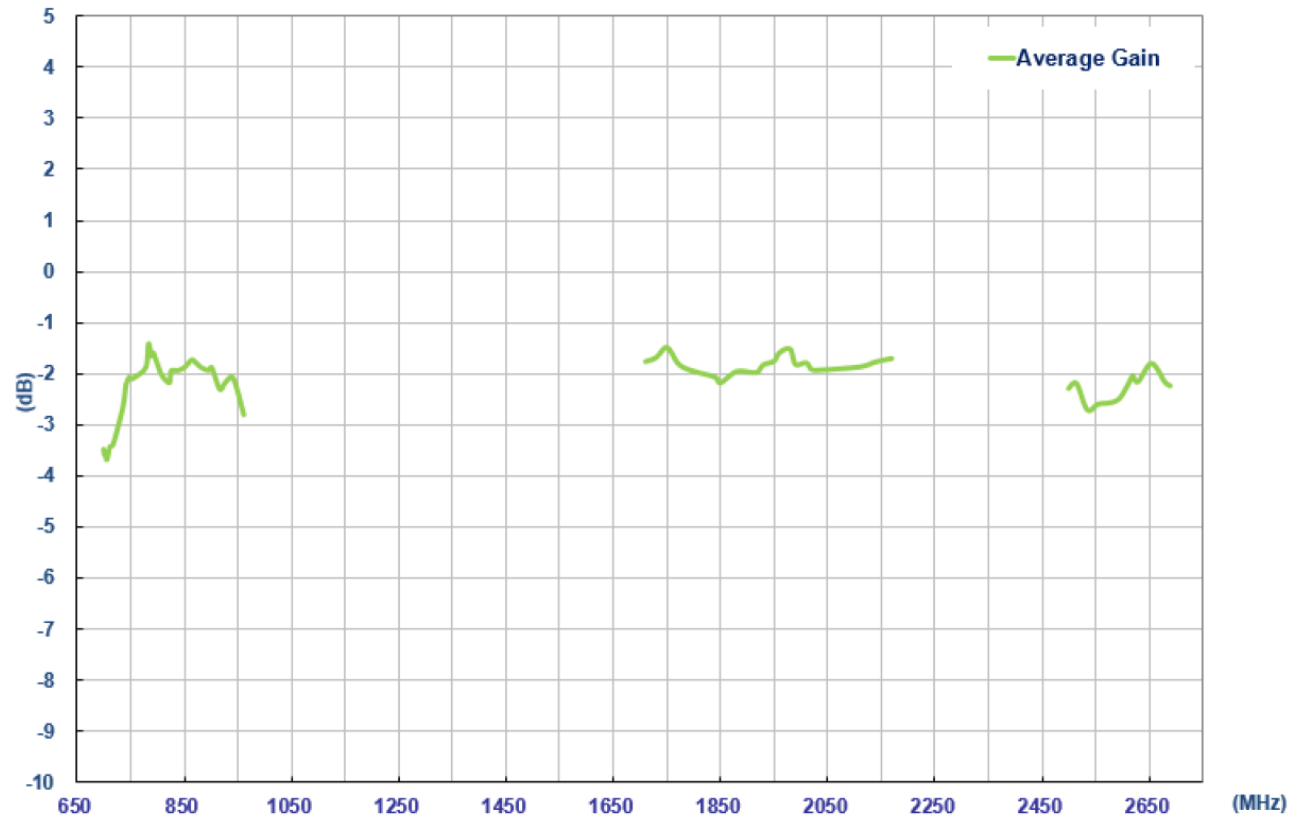
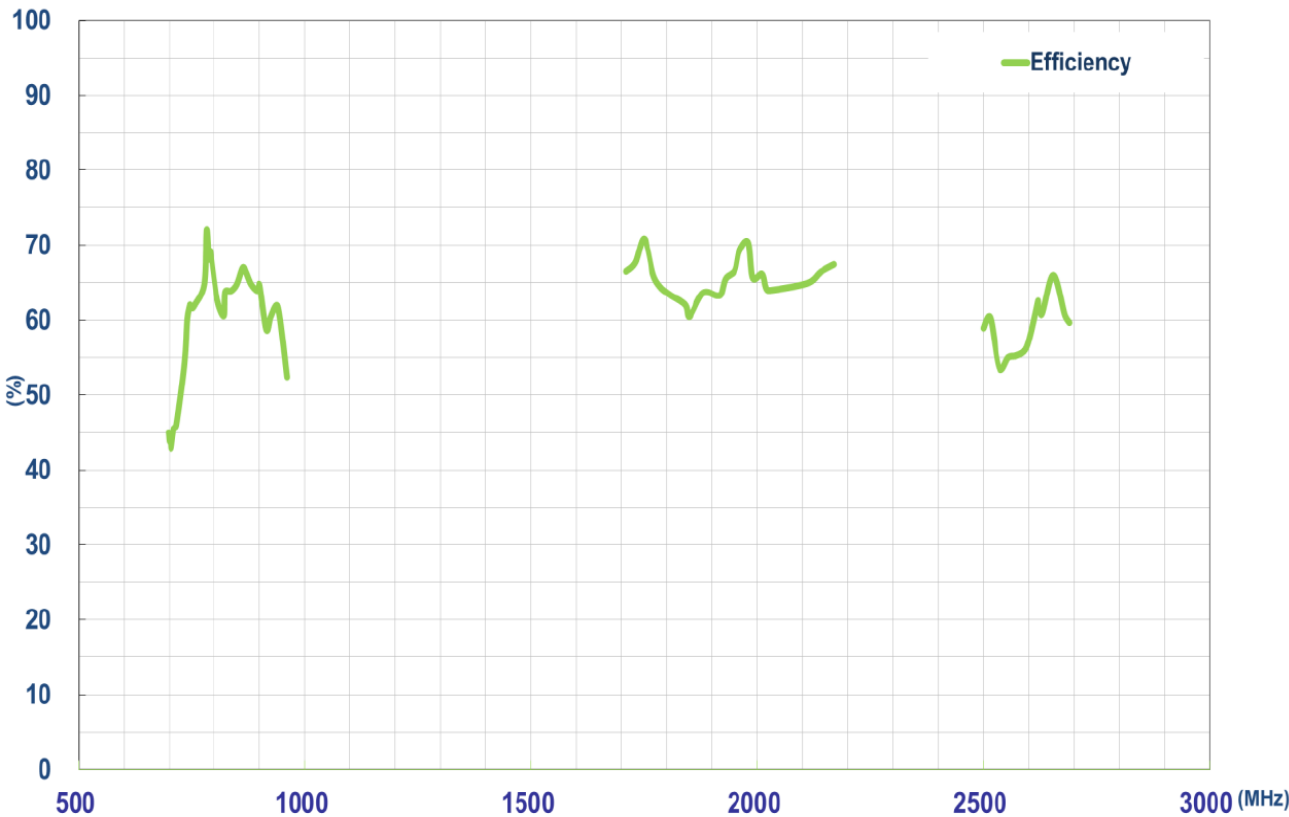


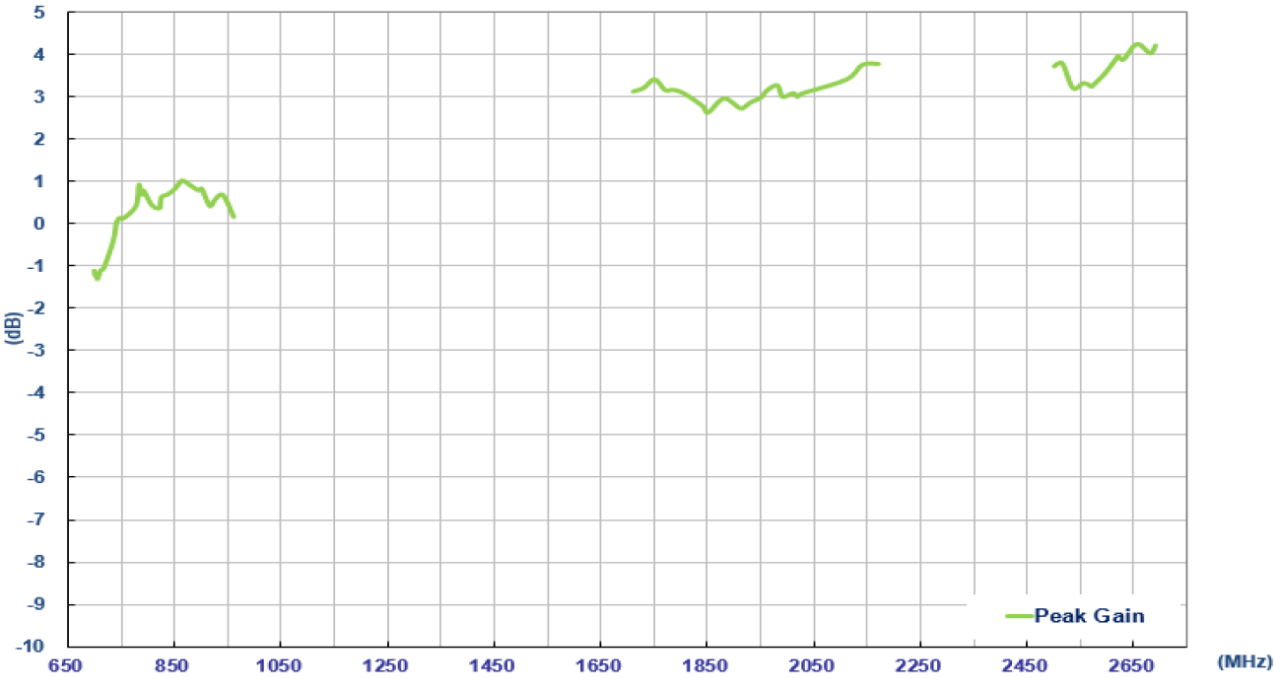
1990MHz



2170MHz

Antenna Efficiency and Gain





Environmental Data

Operating Temperature	-40 °C to +85 °C
IP Rating	NA
Compliance	RoHS
Vibration	10 to 55Hz with 1.5 mm amplitude 2 hours
MSL Level	1

Ordering Information

Product Variants

Part Number	Description
L-2FA1	4G/LTE Monopole FPC Antenna (59 x 50 x 0.4 mm)
L-2FA2	4G/LTE Monopole PCB Antenna (68 x 58 x 0.4 mm)
L-2FA3	4G/LTE Monopole FPC Antenna (105 x 15 x 1 mm)
L-2FA4	4G/LTE Monopole FPC Antenna (51 x 4 mm)
L-2FA8	4G/LTE Monopole FPC Antenna (40 x 15 x 0.3 mm)
L-2FA9	4G/LTE Monopole FPC Antenna (60 x 8 x 0.3 mm)

About MIOT

Miot Wireless Solutions, headquartered in Suzhou, China, was established in 2017. It has subsidiaries in Canada, the United States, Brazil, and EMEA. MIOT is a professional designer and manufacturer of Antennas and IoT PCBA products, providing turn-key service to customers worldwide.

Our talented R&D team has experienced antenna, hardware, and software engineers who can participate in your new project, from something simple like antenna/selection and design, to complete turn-key services, which entails taking your concept and ideas through design, prototyping, debugging, certification, and manufacturing. Miot offers reliable products at reasonable prices with fast delivery times to help you get ahead in the market.

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